# **EXHIBIT H**



### DORRIS AND ASSOCIATES INTERNATIONAL, LLC

1075 Peachtree Street, NE Suite 3750 Atlanta, GA 30309 P 770.487.2138 F 770.487.0106 W www.dorrisassociates.com

May 10, 2019

Edward S. Bott, Jr.
Greensfelder, Hemker & Gale, P.C.
10 South Broadway
Suite 2000
St. Louis, MO 63102

### Susman, et al. v. The Goodyear Tire & Rubber Company

Dear Mr. Bott:

As requested, the following is a report pertaining to opinions that I will offer in the litigation referenced above.

#### **OUALIFICATIONS**

My background and qualifications are provided on my attached curriculum vitae. Briefly, my area of experience and expertise, pertinent to this litigation, is warnings and communications pertaining to product safety. I hold a Ph.D. in Industrial and Systems Engineering from Auburn University and my area of specialization was Human Factors Engineering (HFE), including advanced courses in Human Factors, Safety Engineering, and Ergonomics. My graduate studies were funded by the National Institute for Occupational Safety and Health (NIOSH) Deep South Education and Research Center (ERC). Also, I have been certified by the Board of Certification in Professional Ergonomics (BCPE).

During my professional work experience, I have routinely performed evaluations of the design and development of warnings and similar precautionary information. Dorris and Associates International, LLC provides product safety services to a wide variety of entities. Clients include corporations, non-profit organizations, trade associations, state and federal governmental agencies, as well as defense and plaintiff's attorneys. Client services have been performed in the U.S., Canada, U.K., France, Germany, Spain, Belgium, Australia and Japan.

For many years, I have served on the American National Standards Institute (ANSI) Z535 Committee that promulgates voluntary, consensus warning standards and currently I serve as the chairman of the ANSI Z535.5 standard subcommittee.

Additionally, I am an Affiliate Professor at Auburn University, where I have taught the graduate course in Human Factors Engineering (HFE). I have given numerous presentations and authored various articles, technical reports, and a book chapter on the design of warnings and behavioral responses to safety messages. A listing of my publications is included on the attached curriculum vitae. The charge for my services in this litigation is \$385.00 per hour plus expenses. Attached is a list of trial and deposition testimony I have given over the past four years as well as my most recent curriculum vitae.

### MATERIALS REVIEWED

In my analysis of this matter, I have reviewed the following materials specific to this case:

- Complaint
- The Goodyear Tire & Rubber Company's Answer to the Complaint
- Plaintiff, Rysta Leona Susman's Responses to The Goodyear Tire & Rubber Company's First Set of Interrogatories
- Plaintiff, Rysta Leona Susman's Responses to The Goodyear Tire & Rubber Company's First Request for Production to Plaintiff
- Plaintiff, Shane Loveland's Responses to The Goodyear Tire & Rubber Company's First Set of Interrogatories
- Plaintiff, Shane Loveland's Responses to The Goodyear Tire & Rubber Company's First Request for Production to Plaintiff
- Plaintiff, Jacob Summer's Responses to The Goodyear Tire & Rubber Company's First Set of Interrogatories
- Plaintiff, Jacob Summer's Responses to The Goodyear Tire & Rubber Company's First Request for Production to Plaintiff

- The Goodyear Tire & Rubber Company's Objections and Responses to Plaintiff, Rysta Leona Susman's First Set of Interrogatories
- The Goodyear Tire & Rubber Company's Objections and Responses to Plaintiffs' First Requests for Production of Documents
- The Goodyear Tire & Rubber Company's First Supplemental Objections and Responses to Plaintiffs' First Requests for Production of Documents
- State of Nebraska Investigator's Motor Vehicle Accident Report
- Nebraska State Patrol Incident Report
- Nebraska State Patrol Photographs
- Goodyear Highway Auto & Light Truck Tire Adjustment Policy (GY\_Susman\_20772-GY-Susman\_20777)
- Goodyear Product Service
   Bulletin #2006-13Tire Service
   Life for Passenger Car and Light
   Truck Tires, 3/22/06
   (GY\_Susman\_20832 GY\_Susman\_20833)

- Goodyear Product Service Bulletin #2002-07, 2/01/02 (GY\_Susman\_06326-GY\_Susman\_06331)
- Tire Industry Safety Council 5
  Keys To Better Tire Mileage &
  Safety Brochure
  (GY\_Susman\_28482GY\_Susman\_28493)
- Tire Industry Safety Council Motorist's Tire Care And Safety Guide Brochure (GY\_Susman\_28494-GY\_Susman\_28504)
- Goodyear How To Take Care Of Your Tires Brochure (GY\_Susman\_28505-GY\_Susman\_28517)
- Tire Industry Safety Council Consumer Tire Guide (GY\_Susman\_28518-GY\_Susman\_28533)
- RMA Care and Service of Truck and Light Truck Tires Manual (GY\_Susman\_28534-GY\_Susman\_28597)
- Trailer Tire Changeover Program Procedures, Rev 7/07/00 (GY\_Susman\_28805-GY\_Susman\_28807)
- Goodyear Auto & Light Truck Tire Service Manual (GY\_Susman\_28648-GY\_Susman\_28681)
- RMA Tire Publications Catalog (GY\_Susman\_28682-GY\_Susman\_28691)
- Tire Industry Safety Council New Consumer Tire Guide (GY\_Susman\_28692-GY\_Susman\_28703)
- Miscellaneous Goodyear Limited Warranties and RMA Documents (GY\_Susman\_28704-GY\_Susman\_28804)

- Photographs of Subject Tire and Companion Tires taken by Joe Grant
- Photographs of Subject Vehicle
- NHTSA, Research Report to Congress on Tire Aging 08/2007
- NHTSA, Tire aging: A Summary of NHTSA's Work 03/2014
- NHTSA, Tire Identification and Record Keeping, 2015
- NRDC and Harvard, The Dating Game: How Confusing Food Date Labels Lead to Food Waste in America 09/2013
- RMA Letter, 11/05/07
- RMA Scrap Tire Study, 5/10/06
- RMA Statement, Tire Service Life for Light Vehicle Tires, 9/14/04
- RMA Statement, Tire Service Life for Passenger Car and Light Truck Tires, 03/2006
- 2003 Chevrolet Silverado Owner Manual
- Dandee Concrete Construction Records (GY-DCC 0075-GY-DCC 0110)
- Kearney Towing and Repair Records (GY-KTR 0001-GY-KTR 0025)
- Dandee Construction Fixed Asset Item and Employee Manual & Safety Policy (GY-DCC 0001-0074)
- Deposition of Daniel Bueser, with exhibits, 10/23/18
- Deposition of Rysta Susman, with exhibits, 10/24/18
- Deposition of Jacob Summers, 10/24/18
- Report authored by Lila Laux, 3/13/19
- Deposition of Larry Blair, 2/07/19

- Lila Laux's File Materials on Thumb Drive
- Deposition of Lila Laux, with exhibits, 4/15/19

In addition to the above materials, my opinions are based upon my education and training, in the fields of Human Factors Engineering (HFE) and product safety as well as familiarity with the safety aspects of the published scientific literature and standards in these fields.

### WARNINGS RESEARCH

Over the past quarter of a century there has developed a sizable literature on behavioral responses to warnings. Since the design of safety communications and the systematic analysis of responses to those communications is an aspect of HFE, many of the studies are reported in the HFE literature. Significant reviews of this literature can be found in DeJoy (1989) and Rogers et al. (2000).

As a general proposition, more is not always better with respect to warnings. Aside from practical issues associated with warning about all potential risks in product labels, there is no evidence to suggest that users would be willing or able to process all of this information. Horst et al. (1986) suggested:

"A key concept is that humans are not passive receivers who absorb all information directed toward them. On the contrary, unless a person is in an 'information seeking' mode, the message may not be received at all."

For instance, the National Highway Traffic Safety Administration has recognized the need to avoid what it refers to as "information overload" in developing automotive warning regulations (Dorris & Dorris, 2001a, 2001b). This concern is supported by the available scientific literature, which has identified several deleterious effects associated with "over-warning" (see Frantz, Rhoades, Young & Schiller, 1999). A well-known Human Factors textbook (Kantowitz and Sorkin, 1983) states:

"People become accustomed to the warnings and tend to ignore them. Warnings should be reserved for high-probability events. Even then, it is difficult to get people to pay attention to them."

Receivers that are not seeking safety information about a product are unlikely to attend to warnings they observe. Ayres et al, reported:

"Results of recent warnings studies are consistent with the communication theory principle that people who are not looking for a particular type of information (be it instructions or warnings) are unlikely to notice and use that information if they encounter it" (Ayres et al., 1989).

For a warning to change an individual's behavior, that person must not only notice and read the warning, but also agree with the message or believe the precautions should be followed. For example, an individual may decide not to follow a warning because they believe they will be successful without following the safety message (i.e., affordance perception, see Ayres et. al, 2000) or that following the warning may require more time or effort than they are willing to expend (i.e., cost of compliance, see Rogers et al. (2000).

### FACTS AND OPINIONS

On the basis of my education and experience as outlined above and on the attached curriculum vitae, the literature on warnings including but not limited to those referenced in this report, and the materials reviewed for this case as listed above, I have reached the following opinions that I hold to a reasonable degree of scientific certainty:

### 1. Subject Tire Was Not Defective for Lack of "Tire Aging" Warning

The subject tire was not unreasonably dangerous or defective because it lacked an expiration or "born" date or warning specific to tire service life or aging, such as the one opined by Dr. Lila Laux. From a human factors and safety communications perspective, there is no basis to provide an onproduct expiration date or warning specific to tire service life or aging. I am not aware of any tire manufacturer that provides such a warning today, or at any time, on the sidewall of the tire. I am also not aware of any federal or state regulations, voluntary standards, or industry guidelines that require an expiration date or similar warning.

The subject tire was manufactured during the 24th week of 1994, making it more than 20 years old at the time of the subject accident. This information can be readily determined from the federally-mandated Tire Identification Number (TIN). This system has been in place for over 40 years and provides a uniform method for determining the age of a tire. Information about how to interpret the TIN is commonly available through a variety of sources such as the internet, tire service professionals, and industry literature.

With respect to tire maintenance information, not all messages should be provided as a warning and, as it relates to warnings, it is important to note that more is not always better. For instance, the National Highway Traffic Safety Administration (NHTSA) has recognized the need to avoid what it refers to as "information overload" in developing automotive warning regulations (Dorris & Dorris 2001a, 2001b). This concern is supported by the warnings literature (Frantz, et al. 1999). If a tire manufacturer included on-product warnings about all the potential hazards associated with using tires then consumers would likely be overwhelmed with information, and the warnings would be ineffective.

The decision of whether to include an on-product expiration or "born date" or age-related warning is one that should be applied consistently throughout the tire industry. As mentioned earlier, I am not aware of any regulation requiring such a warning or tire manufacturer providing a warning as opined by Dr. Lila Laux. It would be inappropriate and undesirable for each manufacturer to have its own dating and warning system. In general, NHTSA stresses and requires standardization for information required to appear on tires, such as the TIN. For example, in a rulemaking for light duty tires, the agency stated that it believes standardization is important and "inconsistency with regard to the content, format, and placement" of the required information could result in confusion (see Federal Register 2002, pg. 69619).

With respect to inconsistency in date information resulting in confusion, a recent study concluded that the various dating schemes used with groceries and food products have led to widespread misinterpretation by consumers. The study concluded:

"Individuals from all age and income groups are confused about the current system of date labels" (NRDC and Harvard 2013, pg. 19).

In addition to potential confusion, if tires had an expiration or "born date" or warning then there would be a substantial risk that some consumers would interpret the expiration date as a minimum lifespan and continue to use tires beyond their useful life. The warning label suggested by Dr. Laux could mislead consumers by inadvertently providing them with a false sense of security as it relates to tire service life.

The vast majority of tires are removed from service before they reach 20 years of age based upon data from the Rubber Manufacturers Association's (now US Tire Manufacturers Association) scrap tire survey. The survey did not report a remaining percentage of tires in service beyond a chronological age of 15 years, at which age only 0.5% of tires are still reportedly in service (see Chart 2, RMA letter 11/05/2007).

To require consumers to dispose of tires of a certain age, independent of history or condition and replace them with new ones would impose a cost upon the consumer and the environment. This cost of compliance will not only discourage compliance with the safety message but would be inappropriate until a clear safety benefit can be demonstrated. As such, it would be inappropriate to warn consumers that they must dispose of tires that are still serviceable and in good condition. Rather, it is appropriate to provide information focusing on the maintenance and care of tires.

NHTSA has investigated the issue of tire service life of light duty and passenger tires since at least 2003. In 2007 NHTSA concluded that it lacked sufficient information to establish a safety standard or issue a consumer recommendation regarding the issue of tire service life. In its report dated March 2014, NHTSA declined to issue a tire-aging requirement or require a warning for light duty and passenger tires. Additionally in April 2015 NHTSA

declined to add an "expiration date" or to even change the currently required date code system:

"[W]e do not believe a change to the date code is necessary for consumers to determine when their tires were manufactured. NHTSA's tire consumer Web site, http://www.safercar.gov/tires/index.html, explains in several places how to find and interpret the date code. Furthermore, a person should easily be able to determine the location of the date of manufacture on a tire is located either by querying an internet search engine or by asking a tire dealer" (pg. 19558).

As it relates to a public information campaign (Laux deposition, pg. 81-87) such an effort is also unnecessary, may have unintended negative effects, and would likely not be effective from a safety communications perspective. The same concerns listed above for an on-product warning also apply to a campaign. Additionally, general tire safety information is widely available to the public (see safercar.gov (tirewise) and tiresafety.com). Other examples include recommendations against purchasing used tires (see consumerreports.org).

As described in this report, many consumers will never be confronted with a situation in which they need to know a specific tire manufacturer's agerelated recommendation. The vast majority of tires will be out of service before reaching 10 years. Moreover, consumers will often rely upon tire service professionals for maintenance, repair, and replacement decisions. Knowledge about tire safety and related issues has developed within the tire service industry not only from safety information from tire manufacturers, but also from safety and trade organizations, such as the U.S. Tire Manufacturers Association (USTMA f/k/a Rubber Manufacturers Association (RMA)). Campaigns are generally used to change attitudes about specific risks, not convey a manufacturer's recommendations. Examples include campaigns to change attitudes about drivers willing to get behind the wheel while impaired, being distracted by phones, or without wearing a seatbelt.

A campaign as suggested by Dr. Laux is inherently a shotgun approach, disseminating information in an unfocused and scattered manner. Tire service professionals are the appropriate audience for the age-related recommendation. Additionally, the recommendation is readily available via the internet or from Goodyear dealers.

### 2. Available Information

### (a) Information from Goodyear

Consumers can access tire care and maintenance information from Goodyear's website (see www.goodyear.com). The website provides safety information about topics such as proper inflation, overloading, tire storage,

and other maintenance issues. This precautionary information is reasonable and appropriate in terms of both content and presentation.

It is reasonable to expect that many consumers will rely upon tire service professionals in terms of seeking tire care and safety information as well as in performing inspections and service of tires. As such, consumers can receive Goodyear safety information both directly and indirectly.

As it relates to this matter, Mr. Daniel Bueser, owner of Dandee Construction, testified that the company's vehicles were maintained in-house at Dandee but that some work on the trucks was conducted by two outside facilities, Kearney Towing and Repair as well as Garrett Tires (see deposition of D. Bueser, pg. 11-13). Mr. Bueser also testified that he would at times call Kearney Towing or Anderson Wrecking to inquire about the availability for used tires (pg. 40-41).

Goodyear provided information to tire service professionals discussing tire service life and condition issues. The Product Service Bulletin (03/22/2006) is directed towards tire service professionals and retailers, which is the appropriate audience for this information (GY\_Susman\_20832 to 33). From a human factors perspective, this information is reasonable and appropriate in terms of the method of communication. With respect to the content, the information is not confusing or written in unnecessarily technical terms.

The information contained in this bulletin is generally consistent with the information contained in similar technical bulletins released by other manufacturers and industry organizations. Some tire manufacturers provide a recommendation to remove tires from service after a specific amount of time. Those recommendations agree with Goodyear that (a) there is no science to support a specific expiration date for tires, (b) the maintenance and care of a given tire is key to that tire's service life, and (c) the recommendation should not be considered as a minimum service life for a tire. As described earlier, the warning label suggested by Dr. Laux could inadvertently provide consumers with a false sense of security as it relates to tire service life. The rationale for not providing such a recommendation is explained in the bulletin, which states:

"Recently, various automobile and tire manufacturers have issued statements regarding tire service life which include tire replacement recommendations based on chronological age. As those statements acknowledge, there is no known scientific or technical data that establishes or identifies a specific minimum or maximum service life for passenger and light truck tires. You should **not** consider any such recommendation as a **minimum** service life for a tire Goodyear continues to recommend that consumers inspect, maintain and replace their tires in accordance with the following principles.

As a starting point, tires are designed and built to provide many thousands of miles of excellent service. Tires are removed from service for reasons such as: (1) the tread wears out (down to 2/32nds of an inch); (2) road hazards damage the tire; (3) the

tire is run underinflated or overloaded and is damaged; or (4) consumer choice or personal preference.

Tire materials (including rubber) have performance properties essential to the proper functioning of the tire itself. These properties evolve as a function of time, service and storage conditions: it is a physical property of rubber that it changes with time. However, for each individual tire, the degree and amount of change is affected by many elements such as temperature, storage conditions, and conditions of use (load, speed, inflation pressure, impacts with potholes, etc.) to which the tire is subjected throughout its life. Since service and storage conditions vary widely, accurately predicting the serviceable life of any individual tire in terms of years and/or months is not possible" (emphasis in original).

### (b) Other Information

Additionally, safety information concerning tire service life was provided in the 2003 Chevrolet Silverado owner's manual. For example, it states:

#### "CAUTION:

Poorly maintained and improperly used tires are dangerous.

- Overloading your tires can cause overheating as a result of too much friction. You could have an air-out and a serious accident. See 'Loading Your Vehicle' in the Index.
- Underinflated tires pose the same danger as overloaded tires. The resulting accident could cause serious injury. Check all tires frequently to maintain the recommended pressure. Tire pressure should be checked when your tires are cold.
- Overinflated tires are more likely to be cut, punctured or broken by a sudden impact – such as when you hit a pothole. Keep tires at the recommended pressure.
- Worn, old tires can cause accidents. If your tread is badly worn, or if your tries have been damaged, replace them" (pg. 5-72).

### (c) Dandee Construction Employment Manual

Mr. Bueser identified an employee manual that he endeavors to give to new employees that should have been available to Mr. Blair and Mr. Summers as employees. He testified:

- "Q. Okay. Is that the manual that would've been -- Well, first, let me ask you, do you -- do you give that manual to all of your new employees when they --
- A. Yes.
- Q. -- are hired?
- A. We try and give these out to the new employees.
- Q. Okay. And do they have to sign for receipt of them?
- A. No.
- Q. Okay. Does each employee -- new employee get a copy of that?
- A. Yes.
- Q. Okay. And so would Mr. Susman and Mr. Summers and Mr. Blair have received a copy of this --
- A. They should've.
- Q. -- instruction --
- A. I -- I couldn't -- I couldn't guarantee you that they got one, but they should've had one or --
- Q. Okay.
- A. -- had access to it" (pg. 18-19).

### This manual states in part:

- "1. All employees who are in charge of a company vehicle or any other equipment will be responsible for operation of the same, such as:
- A. Checking the oil, transmission fluid, tires, etc.
- B. Keeping service and maintenance records for each vehicle or construction equipment
- C. Cleanliness inside and out
- D. Record of who has a qualified operator's license to operate the vehicle or construction equipment" (pg. 20, GY-DCC 0043); and

- "11. Seat belts will be worn at all times in all vehicles and construction equipment.
- 12. All equipment will be inspected every day to insure that everything is in safe working order" (pg. 21, GY-DCC 0044).

Despite this manual and its stated requirements, Mr. Larry Blair, driver of the subject vehicle, testified concerns he had about the safety of his place of employment as well as the subject vehicle. He testified:

- "Q. Yeah. The -- we've seen a safety manual from Dandee Construction. Are you familiar with what I'm talking about?
- A. Oh, yeah.
- Q. Did you have a copy of that when you started --
- A. Oh, yeah.
- Q. -- your work there? Okay.
- A. Oh, you're bringing up a place I really don't like anymore.
- Q. Did they kind of hammer home on you about safety? Or --
- A. They didn't hammer home on safety. We hammered them for safety.
- Q. Okay. Tell me about that.
- A. That company wasn't safety. We I reported that for three years. That truck wasn't safety. Me and Shane reported it. That truck wasn't safety. Them tires -- everything on that truck wasn't safety. He just threw that truck together.
- Q. By 'that truck,' you're talking about the 2003 Chevrolet Suburban that was involved in the accident?
- A. Yeah.
- Q. Okay. And when you say 'he,' you're talking about --
- A. Dan Buser.
- Q. -- Dan Buser?
- A. Yeah" (see deposition of L. Blair, pg. 42-43).

### 3. Different or Additional Warnings

From the materials reviewed to date, the evidence does not support a conclusion that a different or additional warning supplied with the subject tire when originally manufactured, such as suggested by Dr. Laux, would have altered anyone's behavior in such a fashion as to avoid this incident.

Mr. Daniel Bueser, owner of Dandee Construction, testified that he would sometimes equip his vehicles with used tires. He testified:

- "Q. Okay. And when you purchase tires for these trucks, are they new tires or are they used tires?
- A. Normally new tires. Sometimes we did purchase used tires, but it normally --
- Q. What -- What would dictate whether you purchased new or used tires?
- A. Well, a lot time we we might check and see if somebody has any used tires, but used tires that are any good are hard to find. So, normally we would buy new.
- Q. And when you say, 'used tires that are any good are hard to find', what do you mean by 'any good'?
- A. Well, we'd call Kearney Kearney Towing or or Andersen Wrecking and ask them if they had any, you know, takeoffs, but but it's difficult to find good used tires" (pg. 40-41).

Mr. Bueser testified further that if he had been given specific information about the number of claims associated with the use of this type of tire it is unlikely to have affected his use of the subject tire. He testified:

"Q. Another thing that I sort of understand from your commitment to safety is -- Well, let me ask you a different way. Had you known that internal Cooper tire -- I'm sorry, Goodyear tire employees were aware of 176 claims for vehicle damage for tires made when this particular tire that failed was manufactured, would you have taken it out of service and replaced it with a new tire?

MR. BOTT: Object to form; foundation.

- A. I probably wouldn't of, but I did not know that.
- Q. (By Mr. Farrar) Right. Had you known in 2002 that the technical chief for Goodyear testified he was aware of 133 injury claims associated with load range 'E' tires like the subject tire manufactured in the same timeframe, would that have caused you concern and possibly replace that tire?

MR. BOTT: Object to form.

A. I did not know that.

Q. (By Mr. Farrar) If you -- If you had known that, would you consider replacing that tire?

MR. BOTT: Same objection.

A. Probably not" (pg. 63).

Mr. Larry Blair, driver of the subject vehicle, testified that neither himself, Mr. Loveland, nor Mr. Summers were wearing their seat belt at the time of the subject accident (see deposition of L. Blair, pg. 67-68).

Air bag warning labels were affixed to each sun visor (see Figures 1 & 2), which, in part, likely state: "ALWAYS use SEAT BELTS".



Figure 1. Photo of subject vehicle's driver side sun visor warning label



Figure 2. Photo of subject vehicle's passenger side sun visor warning label

As it relates to a warning potentially on the sidewall of the tire itself, there is no evidence that Mr. Bueser, Mr. Blair, Mr. Summers, or whomever may have selected, handled, and mounted the subject tire (and its companions) ever looked for or read safety information on the subject tire. Different or additional warnings on the sidewall, such as those suggested by Dr. Laux, could not change behavior if no one looked for or read safety information on the subject tire's sidewall.

Ms. Rysta Susman, mother of Mr. Loveland, testified that Mr. Loveland's reading proficiency is at "a kindergarten grade level" (see deposition of R. Susman, pg. 16).

Records produced by Kearney Towing & Repair Center Inc. indicate that approximately 11 months prior to the subject incident used tires provided by Dandee Construction were put into service on the subject vehicle (see GY-KTR 0024).

From the available evidence in this matter, it is unknown where the subject tire was purchased, what business or which individual(s) selected this tire (along with its companions), who demounted the tires to be replaced, who mounted the subject tire (and its companions). Similarly, it is unknown how any of these decisions were made, the attitudes and beliefs of any of these unknown individuals, what information, if any, was relied upon in making these decisions. As such, an assumption or opinion that different or

additional warnings would have altered behavior in this matter is speculative and not supported by either the facts of this case or the general literature on responses to warnings.

The subject tire's sidewall directs readers to the vehicle owner's manual or tire placard. It states:

"SAFETY WARNING: SERIOUS INJURY MAY RESULT FROM: \*
TIRE FAILURE DUE TO UNDERINFLATION/OVERLOADING FOLLOW OWNER'S MANUAL OR TIRE PLACARD IN VEHICLE. \*
EXPLOSION OF TIRE/RIM ASSEMBLY DUE TO IMPROPER
MOUNTING - ONLY SPECIALLY TRAINED PERSONS SHOULD
MOUNT TIRES. MOUNT ONLY ON 16 INCH RIM APPROVED FOR
RADIAL TIRES. DO NOT MOUNT ON 16.5 INCH RIM."

Mr. Bueser testified that he was aware of the tire placard and its location on the subject vehicle's door jamb as well as the fact that this provides tire size and inflation information, while also misidentifying the tire's sidewall as a source of proper inflation pressure. He testified:

"Q. And -- And with regard to the importance of maintaining the inflation pressure, which is in your manual a couple of times, how would the employees be instructed to identify what inflation pressure the tires are to be kept at?

A. Well, it's either on the tire, but it's also on the door of the truck.

Q. Okay.

A. What size tire and what the inflation should be" (pg. 44).

Mr. Bueser also testified that, despite not knowing where he bought the subject tire (and its companions), he would have told the facility from which he bought the tires what size he wanted to purchase. He testified:

"Q. Okay. And if you purchased them used, would you specify to either Kearney or to Andersen Wrecking the size tire that you were --

A. We would spe- --

Q. -- looking for?

A. Yes" (pg. 43).

The subject tire (and its companions) were LT235/85R16 (see Photographs of Subject Tire and Companion Tires taken by Joe Grant), which is the wrong size for the subject vehicle (correct size is P255/70R16) (see Figure 3).

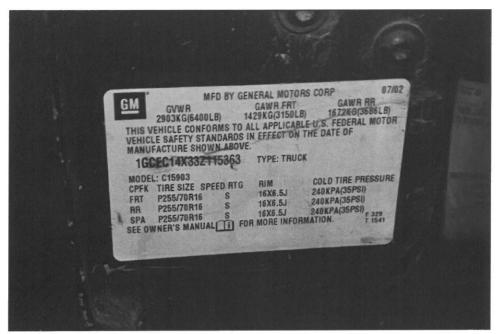


Figure 3. Photo of subject vehicle placard

As it relates to evidence of risk acceptance, it should be noted that the Nebraska State Patrol Incident Report states: "Methamphetamine was located on Jacob Summers" (pg. 1 of 4).

### 4. Consideration of Opinions

Earlier in this report, I outlined my disagreement about the need for an explicit age-related warning on the tire, such as that described by Dr. Laux. Additional observations and points of disagreement include, but are not limited to:

• "Failure of a tire can cause the vehicle to suddenly veer off the path it is on to the side with the failed tire. The natural response of the driver is a strong steering input to try to correct the sudden veering. This often causes the vehicle to leave the road and roll over" (Laux report, pg. 4).

One of Dr. Laux's references for this opinion is a NHTSA publication that reports on drivers' behaviors after a simulated "worst-case detread event" while operating a driving simulator (NHTSA 2003, pg. x). They write that "it should be noted that it may be impossible to replicate drivers' real-world expectations concerning the possible occurrence of an unexpected tire failure in any experimental situation" (pg. 50).

NHTSA reports that when the detread event was unexpected one-third of subjects' first response was not a steering input (pg. ix). NHTSA does not characterize the steering inputs as "strong" or in any other, similar, subjective terms. The researchers found that "on many trials, drivers did not respond until notified by the experimenter that a tread separation had occurred" (pg. 49) and:

"One objective of these analyses was to determine whether the vehicle became uncontrollable as a result of the tread separation alone or as a result of the steering input initiated in an attempt to move the vehicle off the roadway. The most direct evidence supports the latter conclusion" (pg. 49).

Dr. Laux's second basis for this opinion is a blog posting from Allstate.com that provides no data on driver behaviors in response to a tire detread, or other similar events.

• "Most vehicle maintainers and drivers do not know that a tire that is 10 years old or older should not be placed on a vehicle or driven at highway speeds because this creates a hazardous situation. They do not know that the aged tire, that may look perfectly fine, could fail if driven any distance at highway speeds and cause a loss of control" (Laux report, pg. 6).

Dr. Laux's first reference for this opinion is "People Do Not Identify Tire Aging as a Safety Hazard" (Cowley, et al., 2006). This study surveyed 124 undergraduate psychology students as well as 101 non-students and asked to list "all of the types of problems that you believe could occur with the vehicle's tires" (pg. 862) (emphasis in original).

With respect to this article, attempting to judge attitudes, perceptions, and awareness through broad, open-ended questions is flawed methodologically. It does not allow for a structured approach to interview and probe participants or to gauge their potential exposure to such any potential hazards. For example, if a participant typically replaces tires within a few years or have new tires on their vehicle, they would likely consider any issues related to tire age as improbable or unimportant to their circumstances. This methodology also does not account for or address consumers that rely upon tire service professionals for tire maintenance recommendations, such as when to remove tires from service. Dr. Laux's opines in her testimony that it "is pretty much the case now" that "people in tire shops" are aware of the age guidelines and acknowledges that efforts by tire manufacturers to disseminate information to the tire industry has caused this level of awareness. She testified:

"Q. Does the term 'vehicle maintainers' as you use it in this context include trained automotive mechanics?

- A. Well, trained automotive mechanics? No. It might include people in tire shops.
- Q. When you say 'it might,' it might, it might not?
- A. Well, if you take your car to a tire shop, the chances are these days that they would know that a tire of more than 10 years old is not acceptable to be put on your --to keep on your car. That wasn't always the case, but that is pretty much the case now" (pg. 24).
- "Had Mr. Bueser known this tired [sic] was approximately 20 years old, it is likely he would not have purchased it" (Laux report, pg. 7); and

"Had Goodyear provided adequate information about the age of the tire and warnings regarding driving at highway speeds with a tire 10 years or older it is likely that this tire would have been replaced and the accident would not have happened" (pg. 7).

I have outlined the bases for my disagreement earlier in this report. It should be noted that Dr. Laux has not cited to any specific evidence and has not provided any clear basis for these opinions. Dr. Laux's opinion about Mr. Bueser's "likely" behavior is speculative in nature and not supported by the evidence in this matter or the available literature on behavioral responses to warnings.

Dr. Laux testified:

"Q. Okay. So you haven't done it.

You say on the next page: Had Mr. Bueser known this tire -- it says 'tired' but it clearly should be 'tire' -- was approximately 20 years old, it is likely he would not have purchased it.

What's the basis of that conclusion?

- A. Well, I think he would have recognized that it was likely to not be still a very good tire after -- if it was 20 years old.
- Q. Have you read anything that leads you to conclude that Mr. Bueser would not have purchased the tire had he -- had the born-on date been on it?
- A. Not from Mr. Bueser, but I've read other data, reports about people purchasing tires, and they -- you know, most people say they wouldn't want a 20-year-old tire.
- Q. What other data?

A. Well, in some of those articles that I reference, like with Kim and -- Cowley, Kim and Wogalter and Kalsher, Wogalter and Laughery" (pg. 67-68).

The articles Dr. Laux cites (Cowley, Kim, & Wogalter; and Kalsher, Wogalter, & Laughter) do not provide a basis to conclude Mr. Bueser's actions in this hypothetical scenario.

Additionally, Dr. Laux testified that she has no data about the effectiveness of her prototype warning:

- "Q. And this is obviously stating the obvious, but there clearly is no data that you're aware of that goes to the effectiveness of such a prototype warning, correct?
- A. Well, since this prototype warning hasn't been stamped into any tires that I'm aware of, clearly there's not" (pg. 74).
- I agree with Dr. Laux that NHTSA has never concluded that tires 10 years of age or older should be removed from service. She testified:
  - "Q. And so when you make the statement that a tire that is 10 years old or older should not be placed on a vehicle, you're basing that statement on what you've read from other tire manufacturers, what they have said on that subject.
  - A. What the tire manufacturers have said and what NHTSA has said and all the other materials that I've reviewed.
  - Q. NHTSA never reached a conclusion that they should not be placed on a vehicle, did they?
  - A. No, they reached the conclusion that aging tires were more likely to fail.
  - Q. But they never reached a conclusion or issued a recommendation that the tire should not be placed on a vehicle or that the tire should be taken out of service, did they?
  - A. I don't believe they ever did" (pg. 34-35).
- Laux's apparent opinion that risks that are "increasing" even if they are "quite low" are unacceptable. She testified:

"O. I understand.

Are you aware today of any scientific or technical data that supports a specific tire age for removal from service?

A. Well, I have seen data from NHTSA with a graph that shows that after six years, the failure of the tire -- the rate of failure increases. Is there a date? Can I give you a date or can anybody give you a date that says, okay, this tire was manufactured on January 1, 2001 and so on January 1, 2007 it's going to fail? No. That's not the way this works, and that's why we don't have those kinds of specific dates.

What we do know is that after January 1, 2007, the risk that it will fail starts to increase, and we don't want people to be driving on tires where the risk is increasing. Even if the risk is still quite low, there's no point in people incurring this additional risk by driving tires that are older and are likely to fail after six years, which is the date that the car manufacturers chose after looking at all the data that Doctor -- oh, what is his name? Did all that work for Ford.

Q. Dr. Laux, are you aware of anything -- other than the NHTSA data you just referenced, are you aware of any other scientific or technical data that supports a specific tire age for removal from service?

A. Well, I think if you were listening to what I just said, I think the data that was in that NHTSA study and John Baldwin's studies indicates that after six years the risk begins to increase.

Now, if you want to take the risk, if you want to let people driving vehicles take that risk, they can keep driving on them after six years, and likely the tire won't fail in the seventh year, but we don't know that. The risk is increasing every year. So to be safe people need to replace those tires" (pg. 57-58); and

"Q. Okay.

A. That's not the issue, a specific date, and they all know that. The issue is that the risk begins to increase after a certain time, and they do know that" (pg. 59).

I disagree with her apparent opinion that any time a risk is increasing the product must be removed from service. Such a measurement of a product's risk "increasing" is not sufficient basis to determine a product's suitability for continued service, especially given Dr. Laux's apparent acknowledgment that the subject risk in this matter is "quite low."

• Dr. Laux's opinions about a public information campaign (Laux deposition, pg. 81-87).

I disagree for all the reasons previously stated in this report. Dr. Laux also testified that Goodyear has no way of knowing the owner of a given vehicle nor do they have a responsibility to directly warn vehicle owners:

"Q. All right. And would Goodyear have any way of knowing who this vehicle owner was?

A. No.

Q. All right.

A. But they would know that every vehicle owner is taking their cars into -- or the vast majority of vehicle owners are taking their cars into shops at various times to be maintained, and often they're taking them in to get new tires or to have tires replaced.

Q. Are you saying that Goodyear had a responsibility to warn vehicle owners on this issue?

A. Well, not directly" (pg. 87-88).

In the event that additional information is made available to me, I reserve the right to supplement or amend my opinions.

Sincerely,

Nathan T. Dorris, Ph.D. Principal Consultant

Attachments

#### REFERENCES

- Ayres, T., Gross, M., Wood, C., Horst, D., Beyer, R. & Robinson, J. (1989). What is a warning and when will it work? *Proceedings of the Human Factors Society 33<sup>rd</sup> Annual Meeting*, 426-430.
- Ayres, T., Wood, C., Schmidt, R., Young, D., & Murray, J. (2000). Affordance Perception and Safety Intervention. *Proceedings of the IEA 2000/HFES 2000 Congress*, 6-51 6-54.
- Cowley, J., Kim, S. & Wogalter, M. (2006). People Do Not Identify Tire Aging as a Safety Hazard. *Proceedings of the Human Factors and Ergonomics Society 50<sup>th</sup> Annual Meeting, 860-864*.
- DeJoy, D.M. (1989). Consumer product warnings: Review and analysis of effectiveness research. *Proceedings of the Human Factors Society 33rd Annual Meeting*, 936-940.
- Dorris, A.L. & Dorris, N.T. (2001a). Mandatory air bag warnings: A human factors analysis of their development. Society of Automotive Engineering Technical Paper 2001-010046.
- Dorris, A.L. & Dorris, N.T. (2001b). Supporting the warning designer: An automotive case study. *Proceedings of the Human Factors and Ergonomics Society 45th Annual Meeting*, 865-869.
- Federal Register (2002). Rules and Regulations, "Tire Safety Information". Vol. 67, No. 222, Monday, November 18, 2002, 69600-69632.
- Frantz, J.P., Rhoades, T.P., Young, S.L. & Schiller, J.A. (1999). Potential problems associated with overusing warnings. *Proceedings of the 7<sup>th</sup> International Conference on Product Safety Research*, 274-279.
- Horst, D.P., McCarthy, G.E., Robinson, J.N., McCarthy, R.L., & Krumm-Scott, S. (1986). Factors influencing the potential for changing behavior. *Proceedings of the Human Factors Society 30th Annual Meeting*, pp. 111-115.
- Kalsher, M., Wogalter, M., Lim, R. & Laughery, K. (2005). Consumer Knowledge of Tire Maintenance and Aging Hazard. *Proceedings of the Human Factors and Ergonomics Society* 49<sup>th</sup> Annual Meeting, 1757.

- Kantowitz, B.H. & Sorkin, R.D. (1983). <u>Human Factors: Understanding People-System</u> Relationships. John Wiley and Sons, Inc.: New York.
- National Highway Traffic Safety Administration (2003). Investigation of Driver Reactions to Tread Separation Scenarios in the National Advanced Driving Simulator (NADS).
- National Resources Defense Council and Harvard Food Law and Policy Clinic (2013). The Dating Game: How Confusing Food Date Labels Lead to Food Waste in America. September 2013, R:13-09-A.
- Rogers, W.A., Lamson, N & Rousseau, G.K. (2000). Warning research: An integrative perspective. *Human Factors*, 42, 102-139.



### Nathan T. Dorris, PhD, CPE President & Principal Consultant

### **Professional Profile:**

Nathan Dorris is a human factors specialist (ergonomist) with extensive professional experience in product safety and the evaluation of instructions, warnings and other safety communications. Dr. Dorris is a Principal Consultant for Dorris and Associates International, LLC. His primary responsibilities include the design and implementation of product safety research, including evaluations of human-machine interfaces as well as the usability and effectiveness of precautionary information. Dr. Dorris represents Dorris and Associates as a member of the ANSI Z535 main committee and he currently serves as the ANSI Z535.5 subcommittee chairman. The Z535 series of standards pertain to the design of warning signs, labels and various other safety communications.

Dorris and Associates have a wide variety of clients including private and public corporations, non-profit organizations, trade associations, state and federal governmental agencies, as well as defense and plaintiff's attorneys. Client services have been performed in the U.S., Canada, U.K., France, Germany, Spain, Belgium, Australia and Japan. Products manufactured and/or distributed by these clients range from automobiles and airplanes to everyday consumer products and children's toys.

Dr. Dorris is also an Affiliate Professor in the Industrial and Systems Engineering Department of Auburn University, where he has taught the graduate course in Human Factors Engineering (HFE).

### **Education:**

B.S., Management, Georgia Institute of Technology; Atlanta, GA (1997)

M.S., Industrial and Systems Engineering, Auburn University; Auburn, AL (2004)

Ph.D., Industrial and Systems Engineering, Auburn University; Auburn, AL (2004)

N.T. Dorris, Ph.D. Page 2

### **Professional Affiliations & Service:**

Certified Professional Ergonomist (CPE)

American National Standards Institute (ANSI) Z535 Main Committee and Z535.5 Chairman

Human Factors and Ergonomics Society (HFES)

American Society of Safety Professionals (ASSP)

Society of Automotive Engineers (SAE)

The Institute of Industrial Engineers (IIE)

National Safety Council (NSC)

### **Honors & Awards:**

Auburn University Presidential Graduate Research Fellowship
National Institute for Occupational Safety and Health (NIOSH) Graduate Fellowship
Alpha Pi Mu Industrial Engineering Honor Society
2003 INFORMS Doctoral Colloquium Participant
Outstanding Presentation Award, 2003 Auburn University Graduate Research Forum

### **Publications & Reports:**

Boelhouwer, E. J., Davis, J., Franco-Watkins, A., Dorris, N. T., and Lungu, C.(2013). Comprehension of hazard communication: Effects of pictograms on safety data sheets and labels. *Journal of Safety Research*, 46, September, 145-155.

Dorris, N.T. and Burke, K.A. (2011). Mandatory airbag warnings: An updated evaluation. In *Proceedings of the Society of Automotive Engineers International World Congress*, SAE 11B-0026. Warrendale, PA: Society of Automotive Engineers.

Burke, K.A., Dorris, N.T., and Dorris, J.A. (2010). Sunscreen Labeling and Warnings: A Human Factors Analysis. In *Proceedings of the 3<sup>rd</sup> International Conference on Applied Human Factors and Ergonomics*, Miami, FL.

Dorris, N.T., Valimont, R.B, and Boelhouwer, E.J. (2007). Eye Movements While Reading Degraded On-Product Warnings. In *Proceedings of the Human Factors and Ergonomics Society* 51st Annual Meeting, Santa Monica, CA: The Human Factors and Ergonomics Society.

Glasscock, N.F. and Dorris, N.T. (2006). Warning Degradation and Durability. Prepared for: *The Handbook of Warnings*, edited by M.S. Wogalter. A volume in the Human Factors and

N.T. Dorris, Ph.D. Page 3

Ergonomics Series (series editor: Gavriel Salvendy). Mahwah, NJ: Lawrence Erlbaum Associates (LEA).

Carnahan, B.J., Dorris, N.T., and Kuntz, L.A. (2005). Designing Anthropomorphic Symbols Using Interactive Evolutionary Design. *Information Design Journal and Document Design*, 13(3), pp. 179-190.

Dorris, N.T., Carnahan, B.J., Orsini, L, and Kuntz, L.A. (2004). Interactive Evolutionary Design of Anthropomorphic Symbols. In *Proceedings of the 2004 IEEE Congress on Evolutionary Computation (CEC)*. New York: The Institute of Electrical and Electronics Engineers.

Carnahan, B.J. and Dorris, N.T. (2004). User-Centered Symbol Design Through Human-Computer Collaboration. In *Proceedings of the Human Factors and Ergonomics Society 48th Annual Meeting*. Santa Monica, CA: The Human Factors and Ergonomics Society.

Dorris, N.T. and Davis, J. (2003). Testing the Effects of Degradation on Comprehension of Warnings. In *Proceedings of the Human Factors and Ergonomics Society 47th Annual Meeting*. Santa Monica, CA: The Human Factors and Ergonomics Society.

Davis, J. and Dorris, N.T. (2003). Current Status of Warning Systems in Forest Harvesting Equipment. USDA Forest Service Research Agreement No. SRS 02-CA-11330132-087.

Flynn, E., Dorris, N.T., Carnahan, B.J. and Holman, T. (2002) Medication Dispensing Errors in Community Pharmacies: A Nationwide Study. In *Proceedings of the Human Factors and Ergonomics Society 46th Annual Meeting*. Santa Monica, CA: The Human Factors and Ergonomics Society.

Dorris, A.L. and Dorris, N.T. (2001) Supporting the Warning Designer: An Automotive Case Study. In *Proceedings of the Human Factors and Ergonomics Society 45th Annual Meeting*. Santa Monica, CA: The Human Factors and Ergonomics Society.

Dorris, A.L. and Dorris, N.T. (2001). Mandatory Air Bag Warnings: A Human Factors Analysis of Their Development. SAE 2001-01-0046. Warrendale, PA: Society of Automotive Engineers.

### **Presentations & Seminars:**

"The Future of Product Warnings: Some Questions Answered & Some Answers Questioned." American Equipment Manufacturers Product Safety & Compliance Seminar, St. Louis, MO. April 2015.

"Twenty-first Century Warnings in a Global World." Defense Research Institute Product Liability Conference, Washington, D.C. April 4, 2013.

N.T. Dorris, Ph.D. Page 4

"The Development of ANSI Z535.6: Presentation of Safety Messages in Collateral Materials." Invited Panel Member for Discussion at the Human Factors and Ergonomics Society 48<sup>th</sup> Annual Meeting. New Orleans, LA.

"Warning Systems in Logging Equipment." American Society of Safety Professionals (ASSP) Conference 2004, Las Vegas, NV.

"Identifying Relevant Symbol Design Criteria Using Interactive Evolutionary Computation." IEC Workshop at Genetic and Evolutionary Computation Conference (GECCO) 2004. Seattle, WA. June, 2004.

"Developing Safety Symbols for the Workplace through Interactive Evolutionary Design." American Industrial Hygiene Conference & Exposition (AIHce), Atlanta, GA. 2004

"Can Loggers Understand Degraded Warning Labels?" Council on Forest Engineering (COFE) 2004 Annual Meeting. Hot Springs, AR. April, 2004.

"Developing and Evaluating Warnings for Recreational Products." Defense Research Institute (DRI) Product Liability Conference. New Orleans, LA. February 2004.

"Equipment Warning Signs and Symbols." Alabama Cooperative Extension's 2003 Professional Logging Managers (PLM) Continuing Education Satellite Broadcast. Auburn, AL. July 24, 2003.

"The Use of Interactive Evolutionary Design (IED) to Facilitate Workplace Hazard Communication." IEC Workshop at Genetic and Evolutionary Computation Conference (GECCO) 2003. Chicago, IL. July 12, 2003.

"Current Status of Warning-Systems in Forest Harvesting Equipment." National Occupational Research Agenda (NORA) Symposium 2003: "Working Partnerships Research to Practice." Washington, D.C. June 23, 2003.

"How Deteriorated are Warnings Associated with Forest Harvesting Equipment?" Invited Presentation to the Society of Automotive Engineers (SAE) Committee on Forest Harvesting Equipment. Eugene, OR. February 19, 2003.

"Warning Design & Development: A Human Factors Perspective." Key Note Address of the Web Sling and Tie Down Association (WSTDA) Spring 2001 Meeting. San Antonio, TX. March 14, 2001.

## TESTIMONY OFFERED BY DR. NATHAN DORRIS OVER THE PAST FOUR YEARS

THIS INFORMATION MAY NOT BE COMPLETE
AND IS BASED UPON BEST AVAILABLE INFORMATION AND RECOLLECTION

Style	Court	Cause #	Depo/Trial
2015			
Gregory v. Kurt Walther GmbH & CO. KG, et al.	US District Court for the Western District of OK	5:13-CV-01031-M	Depo
Evans v. NACCO	Circuit Court for the City of Roanoke, VA	CL11-1437	Depo
Peterson v. Whelen Engineering Company, Inc., et al.	Circuit Court of Madison County, Alabama	47-CV-2010-901154.00	Depo
Johnson v. Scroll Compressors, LLC, et al.	District Court, Tarrant County, TX	048 26866513	Depo
Gunter v. Tara Manufacturing, Inc., et al.	Greenwood County, South Carolina	2011-CP-24-544	Depo
Nease v. Ford Motor Company	USDC Southern District of W. VA, Huntington Div.	3:13-cv-29840	Trial
Kose v. Springs Window Fashions, LLC, et al.	Middlesex County, New Jersey Calhoun County, Alabama	L 2166-12 2012-900647	Depo Depo
Kelley v. Safeworks, LLC, et al. Ruiz v. Kia Motors America, Inc.	District Court of Dallas County, TX	06-06281	Depo
Green v. Five Star Manufacturing, Inc.	USDC Southern District of Alabama, Southern Div.	14-CV-00449-SGC	Depo
Velasco v. NACCO	Superior Court of Los Angeles County, CA	BC503502	Depo
Rukse v. Wal-Mart Stores, Inc., et al.	US District Court, Northern Dist. of FL, Pensacola Div.	3:14-cv-00236/MCR/EMT	Depo
Slavensky v. York	Superior Court of Almeda County, CA	RG15754136	Depo
Pittas v. Buyers Products Company	Circuit Court of Cook County, Illinois	12 L 0759	Depo
Holt v. Goodyear Tire & Rubber Company, et al.	Superior Court of Maricopa County, Arizona	CV2013-004191	Depo
Montgomery v. Home Depot, et al.	Southern District of the United States District Court	3:12-cv-03057-JLS-DHB	Depo
Johnson v. Scroll Compressors, LLC, et al.	District Court, Tarrant County, TX	048 26866513 BC574473	Trial Depo
Harper v. York International Corporation, et al. Billingsley v. Hubbell, Inc., et al.	Superior Court of California, County of Los Angeles Circuit Court of St. Clair County, Alabama	CV-2013-900305	Depo
Moody v. Stop-Tech, et al.	Circuit Court of Jackson County, Missouri at Kansas City	1316-CV03362	Depo
Shenton v. Anvil	Superior Court of Middlesex County NJ	4395-13	Depo
Shaw v. Yamaha Motor Corporation, U.S.A., et al.	Greene County, Missouri	1131-CV09260	Depo
Couch v. American Optical Corporation, et al.	Knott Circuit Court, KY	10-CI-00155	Depo
2016		447770044447	
Gardner v. Textron, Inc., et al.	State Court of Fulton County, Georgia	14EV001346D	Depo
Tank v. Pirelli Tire, LLC, et al.	Superior Court of the State of AZ, County of Maricopa	CV2013-055999	Depo
Camarata v. Polaris Industries, Inc.	U.S. District Court, Northern District of New York Superior Court of the State of CA, County of Los Angeles	6:14-CV-0975 (GTS/TWD) BC588866	Depo Depo '16/Trial '16
Tyler v. American Optical Corporation, et al. Walker v. Yamaha, et al.	U.S. District Court, Middle District of FL, Orlando Division	6:13-CV-01546-RBD-GJK	Trial
Campbell v. Polaris	U.S. District Court, Western Texas District	1: 14-CV-00-891-SS	Depo '16/Trial '16
Villa v. Honda, et al.	Circuit Court of the 9th Judicial Circuit, Osceola County, FL	12-CA-3914-PL	Depo
Gaudet v. GE Industrial Services, et al.	US District Court, Eastern District of Louisiana	2:15-cv-00795	Depo
Jenks v. Ford	Circuit Court of Floyd County, Virginia	CL12-099 & CL12-100	Depo
Hickerson v. Yamaha	USDC District of South Carolina, Anderson Division	8:13-2311-JMC	Depo
Strother v. American Honda Motor Co., Inc.	21st Judicial District Ct., Parish of Livingston, State of LA	136429	Depo
Shenton v. Anvil	Superior Court of Middlesex County NJ	4395-13	Trial
Fox v. General Motors LLC and Atlanta Auto Brokers	State Court of Cobb County, State of Georgia	14A 3468-4	Depo
Johnson, Paul v. Ford Motor Company	Scott County, Minnesota	70-cv14-22851	Depo
Robinson v. Chrysler Group, LLC	19th Judicial District Court, Parish of Baton Rouge, LA	Suit Number: 624,186; Section: 27 13-900091	Depo
Wright v. Merritt Equipment Co., et al.	Lowndes County, Alabama	14-Cv-236	Depo Depo
Kieffer v. Husqvarna Olvera v. Mazda, et al.	Eau Claire County, Wisconsin Fulton County, Georgia	13EV017592B	Depo
Rodriguez, et al. v. Worthington Cylinder, et al.	Clark County, Nevada	A699935	Depo
Thatcher v. Walmart Stores, Inc.	Circuit Court of Benton County, Arkansas	CV2015-360-5	Depo '16/Trial '16
Latham v. Polaris Industries, Inc.	US District Court Northern District of Texas, Dallas Division	3:15-CV-1209	Depo
Gaddy v. Terex	US District Court North Georgia, Atlanta Division	1:14-cv-01928-WSD	Depo
Williams v. Manitowoc Cranes, LLC	USDC for Southern District of MS, Southern Division	1:14cv383 HSO-JCG	Trial
Ruggierio v. Yamaha	US District Court, New Jersey	1:15-cv-00049-JBS-KMW	Depo
Boehn v. Deestone, et al.	Circuit Court of Arkansas County, Arkansas, Northern District	CV-2015-068 ND	Depo
Williams v. Ideal Industries, Inc. Swalley v. Chrysler	US District Court North Georgia, Atlanta Division Summit County, Ohio	1:14-cv-02883-LMM 2012 09 5350	Depo Depo
			Uses 43 €129
2017 Wright v. Merritt Equipment Co., et al.	Lowndes County, Alabama	13-900091	Trial
Garcia v. Bridgestone, et al.	107th Judicial District Court of Cameron County, Texas	2012-DCL-5269-A	Depo
Romans v. Ford Motor Company	U.S. District Court, Southern District of Ohio, Eastern Div.	2:16-CV-00068	Depo
Thomason v. Toyota Motor Sales, U.S.A., Inc.	U.S. District Court, District of South Carolina, Greenville Div.	6:14-cv-04895-BHH	Depo
Ingram v. Midwest Aerials, et al. v. Grove, et al.	23rd Judicial Circuit Court, Jefferson Co., MO	12JE-CC00798	Depo
Chan v. Siemens	Harris County, Texas	2015-18367	Depo
Graci v. Omega Flex, Inc.	U.S. District Court, District of Connecticut	3:15-cv-00513	Depo
Ferguson v. Wal-Mart Stores, Inc., et al.	Circuit Court of Sebastian County, Arkansas	CV-15-0398	Depo
Gerard v. Omega Flex, Inc.	U.S. District Court, Eastern District of Michigan	1:16-cv-12227-TLL-PTM	Depo
Menard v. York International Corporation, et al.	19th Judicial District Court for the Parish of E. Baton Rouge, LA	C649687	Depo
Camarata v. Polaris Industries, Inc.	U.S. District Court, Northern District of New York	6:14-CV-0975 (GTS/TWD)	Trial
Grubbs v. Scepter Canada, Inc., et al.	Barnwell County, South Carolina	2016-CP-06-00150 CV16-00848-TAK	Depo
Marmont v. Worthington Cylinder Corporation, et al.	U.S. District Court, Central District of California Webb County, TX	CV16-00848-JAK 2013-CVT-001355-D2	Depo Depo
Dominguez, et al. v. Juan Cruz d/b/a K & J, et al. Colvin v. et al. v. SMAC, et al.	US District Court Eastern District Missouri Southeastern Division	4:16-cv-1271	Depo
Stockton v. CNH America LLC	U.S. District Court, Northern District of Oklahoma	16-CV-464-GKF-TLW	Depo
Morales v. Tire Country	Court of Common Pleas for the Fourth Judicial Circuit	2015-CP-13-641, 2016-CP-13-046	Depo

Style	Court	Cause #	Depo/Trial
2018			
Ruggierio v. Yamaha	U.S. District Court, New Jersey	1:15-cv-00049-JBS-KMW	Trial
Causey v. Yamaha Motor Corporation, U.S.A., et al.	U.S. District Court, Northern District of Georgia Atlanta Division	1:16-cv-2105	Depo
Jackson, et al. v. E-Z-Go Division of Textron Inc.	Jefferson, KY Circuit Court	11-CI-04874	Depo
Parrish v. Bosch Technology Corp	U.S. District Court, Eastern District of Missouri Eastern Division	4:16-cv-1271	Depo
Siegel v. Yamaha Golf Car Company	162nd Judicial District, Dallas County, Texas	DC-16-02698	Depo
Strigel v. Omega Flex, Inc., et al.	Durham County, North Carolina	16 CVS 4388	Depo
Chan v. Siemens	Harris County, Texas	2015-18367	Trial
Weams v. FCA	Middle District of Louisiana	3:17-cv-4	Depo
Pentz v. New Smryna Chrysler Dodge Jeep	Seventh Judicial Circuit in and for Volusia, Florida	2016-11361 CIDL	Depo
Tondryk v. Bridgestone Americas Tire Operations	District Court, Sixth Judicial District, Carlton County, Minnesota	09-CV-17-233	Depo
Jordan, et al. v. Maxfield & Oberton Holdings, LLC, et al.	U.S. District Court, Southern District of Mississippi, North Div.	3:15-cv-00220-CWR-LRA	Trial
Rider v. Kawasaki	U.S. District Court, Central Utah Division	2:16-cv-01086-DBP	Depo
Soulliere v. Suzuki Motor of America, Inc.	Orange County, California	30-2015-00790644-CU-PL-CJC	Depo
Dollar General Motor Oil Litigation	U.S. District Court, Western District of Missouri	16-02709-MD-W-GAF, MDL # 2709	Depo
Darnell v. Yamaha Motor Corp.	U.S. District Court, Northern District of Alabama Southern Div.	2:17-CV-202-MHH	Depo
Rollins v. Enerco	US District Court Northern AL Eastern Division	2016-cv-1834-JEO	Depo
Turner/Lopez v. Genie Industries, Inc., et al.	Fulton County, Georgia	12EV016187A	Depo
Rose/Hall v. American Optical	Commonwealth of Kentucky, Letcher Circuit Court	15-CL-269/15-CL-00310	Depo
Amos v. Sunbeam Products, Inc.	In the Circuit Court of Cleburne County, Alabama	CV-15-900082	Depo
Rush v. American Honda Motor Co., Inc., et al.	Los Angeles County, California	BC658021	Depo
Schall v. SMC	U.S. District Court, Western District of Kentucky	4:14-CV-00074-JHM-HBB	Depo
Breaux v. The Goodyear Tire & Rubber Company	25th Judicial District Court, Plaquemines Parish, Louisiana	61-964	Depo
Shasteen v. Hyundai Motor America Corporation, et al	15th Judicial Circuit Court, Palm Beach County, Florida	50 2016 CA 000479XXXXMB	Depo
Leyva v. Honda, et al.	11th Judicial Circuit, Miami-Dade County, Florida	2017-017232-CA-01	Depo
2019		20230000	2.0
Defries v. Yamaha	Riverside County, CA Superior Court	RIC 1710904	Depo
Breaux v. The Goodyear Tire & Rubber Company	25th Judicial District Court, Plaquemines Parish, Louisiana	61-964	Trial
Didier v. FCA US LLC	U.S. District Court, Eastern District of Texas, Sherman Division	4:18-cv-98	Depo
Gomez, et al. v. Harbor Freight Tools USA, Inc., et al.	U.S. District Court, Middle District of Georgia, Athens Division	3:17-CV-00041-CDL	Depo
Rider v. Kawasaki	U.S. District Court, Central Utah Division	2:16-cv-01086-DBP	Depo (vol. 2)
Cunnison v. Jacuzzi	District Court, Clark County, Nevada	A-16-731244-C	Depo
Milburn, et al. v. American Honda Motor Co., Inc., et al.	District Court of Dallas County, Texas	DC-16-16470	Trial
Leyva v. Honda, et al.	11th Judicial Circuit, Miami-Dade County, Florida	2017-017232-CA-01	Trial
Slone/Burke v. American Optical	Pike Circuit Court, Commonwealth of Kentucky	17-CI-846	Depo
Hogan v. Toyota Motor Sales, USA, Inc.	Superior Court of the State California, Orange County	30-2017-00933647-CU-FR-CJC	Depo
Grove v. Omega Flex, Inc.	Jerauld County Circuit Court, South Dakota	36CIV16-000023	Depo
Adams, Gary v. American Optical Corp., et al.	US District Court for Western District of Virginia	2:16-cv-00027-JPJ-PMS	Depo
Chaides v. Volkswagen	Superior Court of the State of Arizona, Maricopa County	CV2017-001815	Depo
Caudill/Walker v. American Optical Corp., et al.	Commonwealth of Kentucky, Letcher Circuit Court	16-C1-00220	Depo



### 2019 Consulting Rate and Fee Schedule

### **Consulting Rate Schedule**

Unless otherwise agreed in advance, Dorris and Associates International, LLC charges an hourly rate for time incurred on all projects. Our time is billed in one-tenth hour increments and is billed at the following hourly rates:

### **2019 Hourly Rates**

Dr. Alan L. Dorris	\$ 625
Dr. Nathan T. Dorris	\$ 385
Dr. Eric Boelhouwer	\$ 240
Associate Consultants	\$ 175
Information Specialists	\$ 175
Research Assistants	\$ 155
Other Support Staff	\$ 85

DAI's consulting rates are adjusted annually and are effective as of January 1st.

#### **Additional Fees**

Where applicable, an Archival Storage Fee of \$100 is charged if a case must be retained after closing for any significant amount of time. This fee covers archival storage charges and any future shipping and/or destruction of file materials. Additionally, there is a Literature Search fee of \$325 that is billed for any month in which significant literature search resources are expended.

### **Project Expenses**

All expenses will be billed at DAI's cost and are payable at time of receipt. Receipts will be provided for any outside charges over \$50.

### **Payment Terms and Conditions**

Dorris and Associates International will issue monthly invoices for any case that has had significant activity during the month. Cases that have had minimal or no activity may not be invoiced for that month. Payment is due upon receipt and invoices that are more than thirty (30) days outstanding are subject to a 1.5% per month charge.

In retaining the services of Dorris and Associates International, LLC you agree to ensure that all invoices are paid fully and promptly whether by your firm, your client, or another party. If there are multiple approved parties splitting the cost of our services, the initial retaining client (person the invoice is addressed to) shall be responsible for ensuring that timely payment is made by all other parties.